

Alberta Conservation Association
2018/19 Project Summary Report

Project Name: Upland Gamebird Studies – Upland Gamebird Productivity Surveys

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Partnerships

Landowners

Pheasants Forever – Calgary Chapter

Volunteers – Dog Handlers

Alberta Environment and Parks

Key Findings

- Our late summer surveys indicate below average production for both pheasants and grey partridge in 2018.
- We flushed 1.54 pheasants per hour, which translates to 1.93 pheasants for each kilometre walked over 29 hours of survey time.
- We flushed 0.82 grey partridge per hour, which translates to 2.25 partridge for each kilometre walked over 29 hours of survey time.
- We increased our survey effort in 2018 walking 67 km of habitat; however, we had the lowest total count of each species (n = 129 pheasant, n = 151 grey partridge) since initiating these surveys in 2012.

Introduction

Since 2012, we have conducted productivity surveys in late summer to gain a measure of annual reproductive success for grey partridge and ring-necked pheasant. The information acquired from these surveys helps us understand population trends, and brood success, as well as inform hunters looking for an indication of breeding success leading up to the hunting season. We release survey results on our website and other social media outlets such as Facebook, each fall. We engage a group of volunteers that participate in the surveys, and interact with landowners from one year to the next helping them to better understand how habitat and weather patterns can lead to changes in bird numbers. These surveys provide a means to build interest in upland hunting as well as a platform to discuss their habitat needs.

Methods

The surveys occur in late summer and early fall to coincide with crop harvest. Once an area is harvested, it allows for higher levels of bird detection in the permanent cover that border the farmland. The survey sites include large coulee systems that harbour a mix of native and tame grasses, fruit bearing shrubs, creeks, and cattail sections, often bordered by crop land. Trained bird dogs are used to search areas of prime habitat, generally coulee systems, to seek out and flush birds. Surveys occur after sunrise during the cool morning weather and typically last from two to four hours depending on conditions. Each flush location is recorded using a handheld GPS. The trained dogs are equipped with Garmin Astro 320 GPS-enabled dog collars that track the distance covered during the survey. The survey time and distance covered are recorded to calculate indices such as flushes/hour which can be easily communicated to hunters. The surveys are intended to mimic hunting scenarios allowing the dog and handler to cover ground as they see fit, to flush the most birds possible. A variety of dogs and handlers are involved in the surveys which offers different levels of search effort and ability giving realistic results that hunters can expect to see in the upcoming hunting season.

Results

Our late summer upland surveys indicate below average counts for ring-necked pheasant and grey partridge in 2018. The flush rate for pheasants is down from last year and similar to the lows we saw in 2012. The flush rate for partridge is also down and the lowest we've observed since initiating these surveys in 2012. Overall, we flushed 129 pheasants and 151 partridge while covering 67 km over 29 hours of effort. It is notable this has also been the highest level of effort put into the surveys since their inception. The dogs encountered 1.5 pheasant and 0.8 partridge flushes per hour (single or covey). Averaged over the entire sample period this equates to roughly 2.3 flushes of either partridge or pheasant per hour. For each kilometre walked surveyors flushed 1.93 pheasants and 2.25 partridge, which is the lowest on record for both species since starting these surveys in 2012 (Table 1 and Table 2).

Table 1. Total counts and encounter rates for ring-necked pheasant during late summer surveys from 2012 to 2018.

Survey results	Ring-necked pheasant						
	2012	2013	2014	2015	2016	2017	2018
Survey year	2012	2013	2014	2015	2016	2017	2018
Distance Surveyed (km)	53.6	60	30	46	47	46	67
Total count	111	215	73	155	263	163	129
Flushes/hour	1.37	2.59	1.96	2.44	3.32	2.23	1.54
Birds/km walked	2.07	3.58	2.43	3.37	5.60	3.54	1.93

Table 2. Total counts and encounter rates for grey partridge during the late summer surveys from 2012- 2018.

Survey results	Grey partridge						
	2012	2013	2014	2015	2016	2017	2018
Distance Surveyed (km)	53.6	60	30	46	47	46	67
Total count	354	420	397	292	159	214	151
Flushes/hour	1.37	1.59	3.53	2.15	0.83	0.96	0.82
Birds/km walked	6.6	7	13.2	6.35	3.38	4.65	2.25

Conclusions

Encounter rates and overall numbers were lower than average, and for grey partridge the lowest observed since initiating these surveys in 2012. In many locations this past winter was the worst seen in over 30 years. After a severe winter and late wet spring, it's no surprise that counts are lower. These results reflect on a year with high winter mortality entering spring 2018, followed by poor recruitment, especially for grey partridge. An optimistic view acknowledges that any survival after such challenging living conditions is encouraging and demonstrates the value of high-quality habitat.

Communications

- The pheasant population survey results were published on ACA's website and communicated via social media. Results were also shared with Pheasant Forever Calgary, who further shared this information with its members via an e-newsletter and through hard copies mailed out to members.

Literature Cited

None

Photos



Chokecherry provides excellent vertical structure for game birds, as well as a valued food resource. Photo: Kyle Prince



German short-haired pointer on point in excellent upland habitat. Photo: Kyle Prince



Volunteer's English Setter on point. Photo: Aiden Bateman



Volunteer's English Setter once again on point in great habitat. Photo: Aiden Bateman